

modifications may be made without deviating from the spirit and scope of the invention. Accordingly, the invention is not limited except as by the appended claims.

1. An apparatus comprising:  
5 an input waveguide for carrying an optical signal having a nominal wavelength; and  
an output waveguide having a Bragg grating disposed proximate to said input waveguide, said Bragg grating having an adjusted grating period that has been increased from a nominal grating period to  
10 compensate for a Bragg wavelength shift.
2. The apparatus of claim 1 wherein said Bragg grating is implemented as a uniform grating having means for applying a temperature gradient to said uniform grating.
3. The apparatus of claim 1 wherein said Bragg grating is  
15 implemented as a uniform grating having means for applying a strain gradient to said uniform grating.
4. The apparatus of claim 1 wherein said Bragg grating has a higher periodicity in its middle portion than in its outer portions.
5. The apparatus of claim 1 wherein said Bragg grating is an  
20 apodized Bragg grating.
6. The apparatus of claim 1 wherein said Bragg grating has a variable grating period.

7. A grating assisted direct coupler comprising:  
an input waveguide carrying an optical signal having a nominal  
wavelength;  
an output waveguide having a variable period Bragg grating for coupling  
said optical signal into said output waveguide, said variable period  
Bragg grating having an adjusted variable grating period that has  
been changed from a nominal variable grating period to  
compensate for a Bragg wavelength shift.
8. The direct coupler of claim 7 further including means for applying  
a temperature gradient to said variable period Bragg grating.
9. The direct coupler of claim 7 further including means for applying  
a strain gradient to said variable period Bragg grating.
10. The direct coupler of claim 7 wherein said variable period Bragg  
grating has a higher periodicity in its middle portion than in its outer portions.
11. The direct coupler of claim 7 wherein said variable period Bragg  
grating is an apodized Bragg grating.

12. A method for compensating for a Bragg wavelength shift in a grating assisted direct coupler having an input waveguide and an output waveguide, said output waveguide having a Bragg grating formed thereon, the method comprising applying a temperature gradient to said Bragg grating.

5 13. A method for compensating for a Bragg wavelength shift in a grating assisted direct coupler having an input waveguide and an output waveguide, said output waveguide having a Bragg grating formed thereon, the method comprising applying a stress gradient to said Bragg grating.

10 14. A method for compensating for a Bragg wavelength shift in a grating assisted direct coupler having an input waveguide and an output waveguide, said output waveguide having a Bragg grating formed thereon, the method comprising varying the periodicity of said Bragg grating.